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EXAMINER

SUN, XIUQIN

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/005,489

Applicant(s)

STRASSER, ERICH

Examiner

Xiuqin Sun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-20 is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielski et al. (U.S. Pat. No. 6353397 B1) in view of Utsunomiya et al. (U.S. Pat. No. 6327127 B1).

Bielski et al. teach a position measuring device for determining the position of two elements, which are movable with respect to each other (col. 2, line 66 to col. 3, line 15), comprising: a voltage source (fig. 1; col. 4, lines 37-46); and a scanning unit (fig. 1; col. 3, lines 1-3) comprising: one or more individual electrical components (fig. 1).

Bielski et al. further teach: said position measuring device further comprises: an evaluation unit (fig. 1; and col. 3, lines 7-10); an interface by which said scanning unit transmits data to said evaluation unit, wherein said interface is not one of said one or more individual electrical components (fig. 1; and col. 4, lines 2-7); a graduation that moves relative to said scanning unit (col. 3, lines 1-3 and lines 16-20); said scanning unit further comprises a reading head that reads said graduation and generates position data that is sent to a position calculating unit that generates said data transmitted to

said evaluation unit (fig. 1; col. 3, lines 10-15 and lines 25-41); said reading head comprises a light source (col. 3, lines 25-41).

Bielski et al. do not mention explicitly a voltage monitoring unit that selectively supplies said one or more individual electrical components with a voltage from said voltage source.

Utsunomiya et al. disclose an electronic instrument and teach a voltage monitoring unit that selectively supplies said one or more individual electrical components with a voltage from said voltage source (abstract; col. 2, lines 46-67; col. 3, lines 44-62; col. 5, lines 41-53, lines 66-67 and col. 6, lines 1-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Utsunomiya et al. in the Bielski position measuring device in order to provide an electronic instrument which can prevent an erroneous operation immediately after feeding even in the case where a sufficient power source voltage is not quickly supplied (Utsunomiya et al., col. 2, lines 37-40).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bielski et al. (U.S. Pat. No. 6353397 B1) in view of Utsunomiya et al., as applied to claims 1 and 2 above, and further in view of Potega (U.S. Pat. No. 6459175).

Bielski et al. and Utsunomiya et al. teach a device that includes the subject matter discussed above. Bielski et al. and Utsunomiya et al. do not mention explicitly: said interface is a serial interface.

Potega teaches a serial connection with an A/D converter (col. 54, lines 47-67 and col. 55, lines 1-3). It would have been obvious to one having ordinary skill in the art

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at the time the invention was made to include the teaching of Potega serial interface in the Bielski and Utsunomiya position measuring device in order to provide a digital data I/O with better communication opportunities (Potega, col. 54, lines 47-67 and col. 55, lines 1-3).

4. Claims 7–13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bielski et al. in view of Utsunomiya et al., as applied to claim 1 above, and further in view of Hoon (U.S. Pat. No. 6104221).

Bielski et al. and Utsunomiya et al. teach a device that includes the subject matter discussed above. Bielski et al. and Utsunomiya et al. do not mention explicitly: said voltage monitoring unit monitors a supply voltage available to said one or more individual electrical components at a first time; said scanning unit further comprising a load connected to said voltage monitoring unit, wherein said voltage monitoring unit connects said load to said scanning unit at a second time and said voltage monitoring unit connects said voltage monitoring unit monitors a second supply voltage available to said one or more individual electrical components and said load at said second time. Bielski et al. and Utsunomiya et al. also do not teach: a method for the start-up of a position measuring device comprising a scanning unit, the method comprising: switching on a position measuring device that comprises a scanning unit; subsequent to said switching on, performing a check of a supply voltage of said scanning unit supplied by a voltage source; and activating one or more electrical components in said scanning unit, provided a sufficient supply voltage for said activating has been determined during said performing said check; said performing said check comprises: measuring a supply

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voltage of said scanning unit for a first time; providing a defined load with a voltage; and calculating an internal resistance of said voltage source.

Hoon discloses a power-up detection circuit of a semiconductor device, and teaches: a voltage level detection unit which monitors a supply voltage available to said one or more individual internal circuits at a first time (col. 2, lines 1-30, lines 61-67 and col. 3, lines 1-5); a load connected to said voltage level detection unit, wherein said voltage level detection unit connects said load to said power-up detection circuit at a second time and said voltage level detection unit monitors a second supply voltage available to said one or more individual internal circuits and said load at said second time (col. 3, lines 54-67; col. 4, lines 1-3 and lines 37-59).

Hoon further teaches a method for the start-up of a semiconductor device (see Abstract), comprising: switching on a semiconductor device; subsequent to said switching on, performing a check of a supply voltage; and activating one or more internal circuits, provided a sufficient supply voltage for said activating has been determined during said performing said check (col. 1, lines 12-24; col. 2, lines 30; and col. 2, line 61 to col. 3, line 5). Hoon further teaches: said performing said check comprises: measuring a supply voltage for a first time; providing a defined load with a voltage; and calculating an internal resistance of said voltage source (col. 3, line 54 to col. 4, line 3; and col. 4, lines 37-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Hoon power-up detection circuit and method for the start-up of a semiconductor device in the Bielski and Utsunomiya

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position measuring device in order to provide a stable voltage source for switching on and operating the said scanning unit (Hoon, col. 1, lines 12-33).

Allowable Subject Matter

5. Claims 14-20 are allowed.

Reasons for Allowance

6. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 14-20 is the inclusion of the method step of measuring a second supply voltage of said scanning unit at a second time, wherein said calculating said internal resistance is based on said supply voltage of said scanning unit measured at said first time, said second supply voltage and a current consumption of said defined load. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments filed 05/28/2003 with respect to claims 1-13 have been

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considered but are moot in view of the new ground(s) of rejection.

Claims 1-13 are rejected as new art (Utsunomiya et al., U.S. Pat. No. 6327127 B1) has been found to teach the following subject matter: a voltage monitoring unit that selectively supplies said one or more individual electrical components with a voltage from said voltage source. For detailed response, please refer to section 2 set forth above in this Office Action.

Contact Information


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

XS

July 21, 2003


John Barlow
Supervisory Patent Examiner
Technology Center 2800